SKF 22214 EK

Spherical roller bearing with tapered bore and relubrication features

Spherical roller bearings can accommodate heavy loads in both directions. They are self-aligning and accommodate misalignment and shaft deflections, with virtually no increase in friction or temperature. The design includes features to facilitate relubrication. The bearings can be used in a modular system, including housings, sleeves and nuts.

Technical specifications

General	
Bore type	Tapered 1:12

Dimensions	
Bore diameter	70 mm
Deviation limits of mid-range bore diameter	0..0.03 mm
Deviation limits of tapered slope	0..0.03 mm
Outside diameter	125 mm
Deviation limits of mid-range outside diameter	-0.018..0 mm
Width	31 mm
Deviation limits of ring width	-0.06..0 mm
Shoulder diameter of inner ring	83 mm
Shoulder/recess diameter of outer ring	111 mm
Width of lubrication groove	6 mm
Diameter of lubrication hole	3 mm
Chamfer dimension	1.5 mm
ISO tolerance class for dimensions	Normal

Abutment dimensions	
Diameter of housing abutment	116 mm
Radius of fillet	1.5 mm

Calculation data	
SKF performance class	SKF Explorer
Basic dynamic load rating	213 kN
Basic static load rating	228 kN
Fatigue load limit	25.5 kN
Reference speed	5000 r/min
Limiting speed	6700 r/min
Limiting value	0.23
Calculation factor	2.9
Calculation factor	4.4
Calculation factor	2.8

Tolerances of run-out	
Range of section height at inner ring of assembled bearing	5 µm
Maximum run-out of inner ring side face to the bore	8 µm
Range of section height at outer ring of assembled bearing	11 µm
Perpendicularity of outer ring outside surface	5 µm
ISO tolerance class for geometrical tolerances	P5

Radial internal clearance	
Minimum initial clearance	70 µm
Maximum initial clearance	95 µm

Mounting information	
Recommended tightening angle for lock nut	130 °

Performance	
Basic dynamic load rating	213 kN
Basic static load rating	228 kN
Reference speed	5000 r/min
Limiting speed	6700 r/min
SKF performance class	SKF Explorer

Properties	
Number of rows	2
Locating feature, bearing outer ring	Without
Bore type	Tapered 1:12
Cage	Sheet metal
Radial internal clearance	CN
Tolerance class for dimensions	Normal
Tolerance class for run-out	P5
Sealing	Without
Lubricant	None
Relubrication feature	With
Indicative carbon footprint for new product	5.6 kg CO₂e

Logistics	
Product net weight	1.56 kg
eClass code	23-05-09-11
UNSPSC code	31171510

SKF drawings